

# EFFECT OF PHYSICAL THERAPY ON STATIC MUSCLE ENDURANCE IN LUMBOSACRAL PAIN SYNDROME

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## INTRODUCTION

Pain in the lumbosacral area is one of the most common neurological complaints in modern society. Chronization of the problem is most often due to inappropriate treatment of acute idiopathic pain in the lumbar spine, improper working posture, chronic overload of the lumbar spine, weak muscles and other unclear factors. It is known that the lack of sufficient physical activity in everyday life leads to deconditioning of the muscles that support the spine. For this reason, in the treatment of such patients, the musculoskeletal exercise should be included in the physiotherapy program.

## AIM

To evaluate the effect of physical therapy including exercises to improve lumbar stabilization in patients with chronic lumbosacral pain syndrome.

## MATERIAL AND METHODS

10 patients with chronic lumbosacral syndrome divided into experimental group and control group were examined. Both group was administered a physical therapy regimen of individual procedures, 5 times a week for 6 week course. The physical therapy for the experimental group include - warm compresses, massage, breathing exercises, lumbar stabilization exercise, Swiss ball exercises, exercise with Thera-Band and stretching. Control group included massage, breathing exercises, analytical and isometric exercises. For the purposes of the study are double-tracked changes in static power endurance of the muscles forming the lumbar muscle corset by the static part of the Kraus - Weber test.

## RESULTS

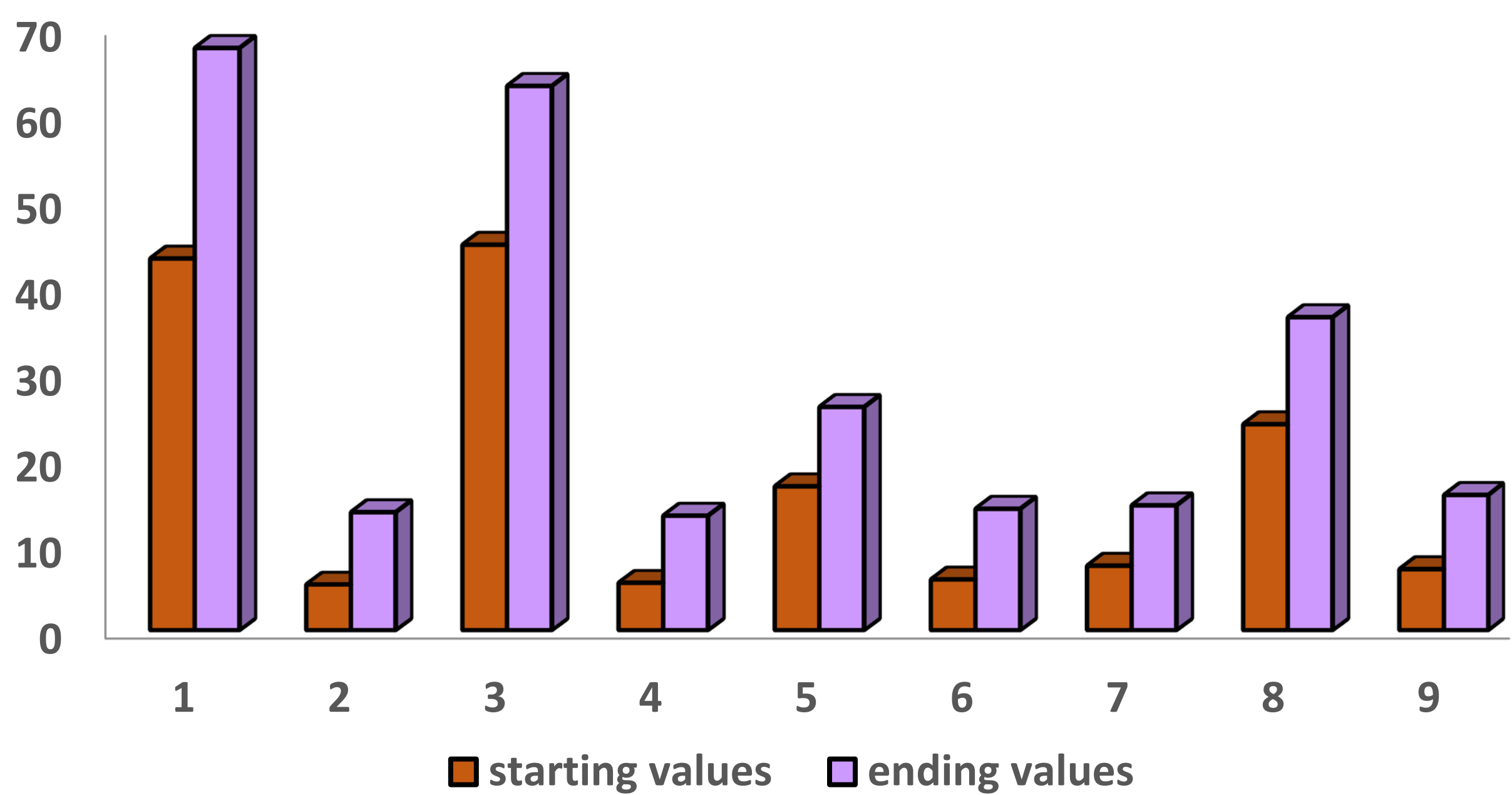


Figure 1. Comparison of initial and final EG values from a static part of the Krauss-Weber test (in sec).

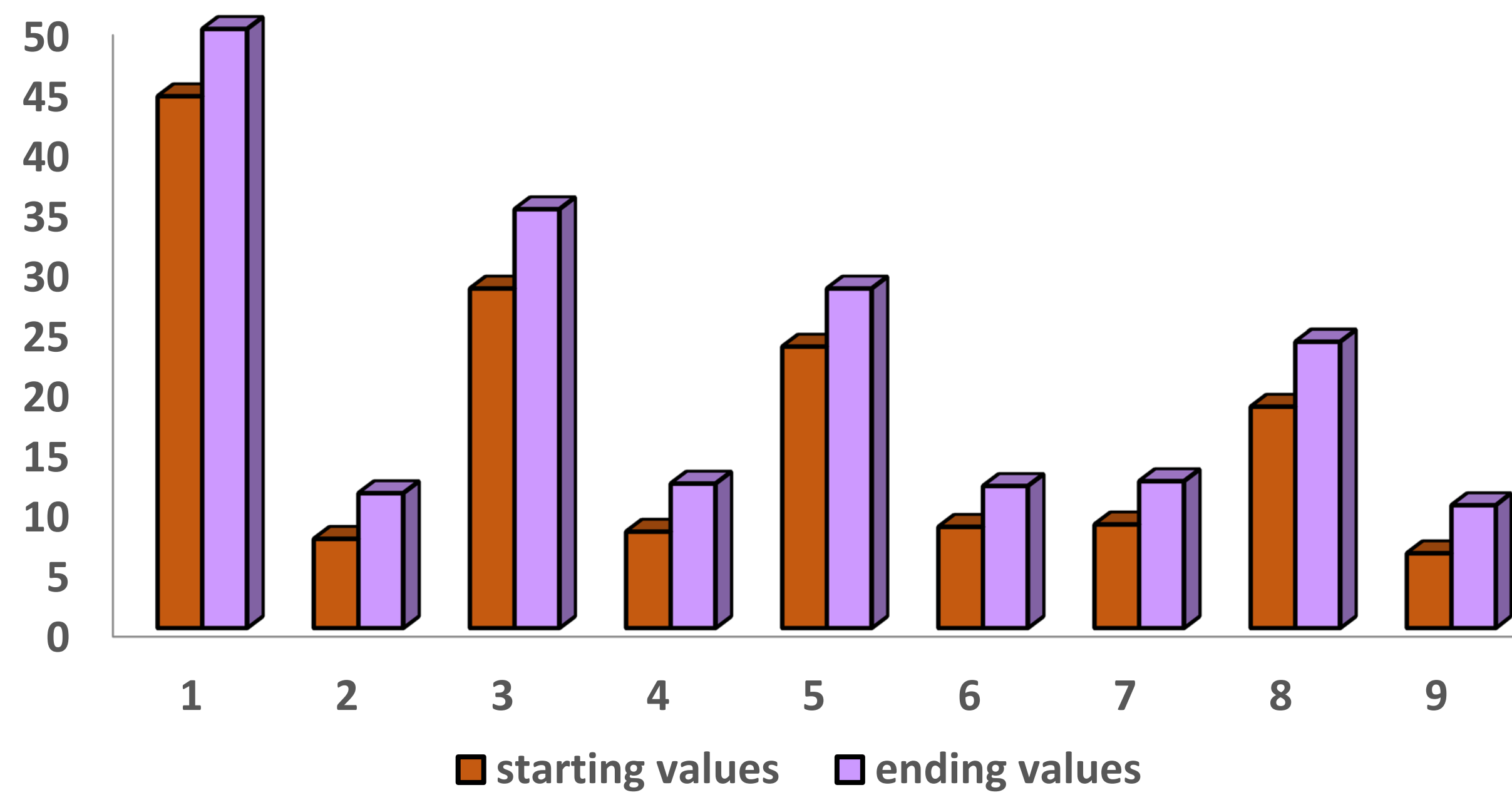


Figure 2. Comparison of initial and final KG values from a static part of the Krauss-Weber test (in sec).

Physical therapy including exercises to increase lumbar stabilization improves significantly static muscle endurance in patients of the experimental group. In the control group there were also positive changes, but the values are less pronounced.

## CONCLUSIONS

The application of physical therapy including exercises for lumbar stabilization, exercises with Swiss ball and elastic bands in combination with warm compresses and stretching, leads to improved static power endurance and strengthen muscle corset in patients with chronic lumbosacral syndrome.